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IN THE UNITED STATES DISTRICT COURT FOR THE
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 2
                   NORTHERN DISTRICT OF OKLAHOMA
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 4
     W. A. DREW EDMONDSON, in his )
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     capacity as ATTORNEY GENERAL )
     OF THE STATE OF OKLAHOMA and )
6
     OKLAHOMA SECRETARY OF THE
     ENVIRONMENT C. MILES TOLBERT,)
7
     in his capacity as the
     TRUSTEE FOR NATURAL RESOURCES)
     FOR THE STATE OF OKLAHOMA,
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 9
                  Plaintiff,
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                                    ) 4:05-CV-00329-TCK-SAJ
     vs.
     TYSON FOODS, INC., et al,
11
                  Defendants.
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                       VOLUME II OF THE VIDEOTAPED
14
     DEPOSITION OF ROGER OLSEN, PhD, produced as a
15
     witness on behalf of the Defendants in the above
16
     styled and numbered cause, taken on the 11th day of
17
     September, 2008, in the City of Tulsa, County of
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19
     Tulsa, State of Oklahoma, before me, Lisa A.
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     Steinmeyer, a Certified Shorthand Reporter, duly
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     certified under and by virtue of the laws of the
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     State of Oklahoma.
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I N D E X WITNESS PAGE ROGER OLSEN, PhD Cont. Direct Examination by Mr. George Direct Examination by Mr. McDaniel Cont. Direct Examination by Mr. George Signature Page Reporter's Certificate

1	think related to the metals being mobilized with the	
2	organic carbon and staying in solution and not being	
3	attenuated.	
4	So your question was how many of these are	
5	conservative. Potassium, TS, two, magnesium, three,	05:29PM
6	most of the phosphorus, four, five, six, a little	
7	attenuation there. So in my opinion, there's five	
8	or six that are very conservative but not you can	
9	never say anything is an exact conservative element,	
10	and the rest of them, you know, have some	05:29PM
11	attenuation but in my opinion not to affect the	
12	overall evaluation of their transport throughout the	
13	basin.	
14	Q In fact, your principal component analysis	
15	assumes that they're all conservative, doesn't it?	05:29PM
16	A No.	
17	Q Specifically how did you account for the	
18	differences in fate and transport via surface water	
19	pathways as compared, for instance, to groundwater	
20	pathways?	05:30PM
21	A I didn't have to in the principal component	
22	analysis. It gives me a chemical analysis at a	
23	particular spot, and if I still see the constituents	
24	and it has a particular score, then it's impacted.	
25	It can be certainly, as we talked about this	05:30PM

1	morning, diluted. It can be attenuated, but as long	
2	as they're still there, it doesn't matter. So it's	
3	a conservative, maybe considered conservative, but	
4	we're looking at individual samples and individual	
5	locations and see what we have there, so you don't	05:30PM
6	have to account for the fate and transport.	
7	Q Now, from what I've heard, your testimony	
8	primarily with Mr. George, to look at how this	
9	your poultry fingerprint primarily described on	
10	Figure 6.11-18C where you've drawn the two areas,	05:31PM
11	you have cattle, edge of field samples that show	
12	up I know they're not on this chart but they show	
13	up within the poultry signature. You've got water,	
14	residence water wells that show up in the sewage	
15	signature. You've got Tahlequah samples where	05:31PM
16	there's no poultry that show up as poultry impacted.	
17	Did it ever occur to you, Dr. Olsen, that the	
18	problem is not in the watershed, it is that your	
19	fingerprinting methodology is flawed?	
20	A Those are anomalies that we try to explain,	05:32PM
21	and there's always going to be some minor anomalies	
22	in my opinion. Those are minor for the hundreds and	
23	hundreds of samples that we have in the whole	
24	analysis. So I don't think the analysis is flawed	
25	at all.	05:32PM